



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,279	10/07/2003	Ryohei Higuchi	032404-072	4017

21839 7590 07/25/2005

BUCHANAN INGERSOLL PC
(INCLUDING BURNS, DOANE, SWECKER & MATHIS)
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

MISIURA, BRIAN THOMAS

ART UNIT	PAPER NUMBER
----------	--------------

2112

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

47

Office Action Summary

Application No.

10/679,279

Applicant(s)

HIGUCHI, RYOHEI

Examiner

Brian T. Misiura

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/07/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

Specification

The disclosure is objected to because of the following informalities:

1. Figure 1 reference numerals 131, 132, and 133 are referred to by reference numerals 130, 131, and 132 in the Detailed Description starting on page 14 line 15 and continuing up to page 16 line 14. Correct numbering of these references begins on page 16 line 22. Due to the reference bus lines being labeled, the scope of the drawing and description was still clear.

2. Figure 3 reference numeral 314 is referred to by reference numeral 313 in the Detailed Description on two occasions; page 27 line 6 and page 28 line 3. Since reference numeral 314 is not referenced at all in the Specification, the assumption was made for reference numeral 313 to have been numbered 314.

Appropriate correction is required in the form of making the informalities listed above with respect to reference numerals consistent throughout the Specification and Drawings.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Applicants claimed invention is deemed allowable over the prior art of record as the prior art fails to teach or suggest the following limitations.

1. at least one bus master of the bus masters has an arrangement for instructing pre-read of data, at the time of issuing a data read request. (claim 1)

Art Unit: 2112

2. an external device control unit that makes the external address generation unit to continuously generate an address for normal readout this time and an address for the next pre-read, upon reception of the data read request accompanied with the data pre-read instruction issued by the one bus master, and executes readout based on the next pre-read address, provided that when the normal readout this time is finished, the bus master other than the one bus master has not issued a data read request. (claim 1)

3. an external device control unit that generates the address generation instruction so that the external address generation unit continuously generates an address for performing normal readout this time and an address for performing pre-read for the next time, when the data read request issued by the one bus master is accompanied with the generation of the data pre-read instruction signal, and executes readout based on the next pre-read address, provided that bus master other than the one bus master has not issued a data read request, when the normal readout this time is finished. (claim 5)

4. an external device control unit that generates the address generation instruction so that the external address generation unit sequentially generates a plurality of addresses for performing pre-read in addition to the address for performing the normal readout, when it judges to execute pre-read of data, upon reception of the data read request issued by the one bus master, sequentially executes readout by the pre-read addresses provided that bus master other than the one bus master has not issued a data read request, and

Art Unit: 2112

executes readout by the normal readout address upon reception of the normal readout instruction. (claim 7)

5. a pre-read data registration unit that registers the pre-read data read by the pre-read addresses identifiably by the address identifiers, and judges whether there is one of the address identifiers that agrees with the address in the address signal accompanying the data read request issued by the one bus master, and when there is one address that this condition, transmits the corresponding registered pre-read data to the one bus master as the readout data this time, and when there is no address that agrees this condition, generates the normal readout instruction to transmit the read normal data to the one bus master as the readout data this time. (claim 7)

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Misiura whose telephone number is (571) 272-0889. The examiner can normally be reached on M-F 8:00-4:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on (571)272-3676. The

Art Unit: 2112

fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BTM



REHANA PERVEEN
PRIMARY EXAMINER
7/21/05